CLIMATE ACTION PLAN
Implementation Progress Report
April 2012

SUMMARY
Since 2000, Chula Vista has been implementing a "Climate Action Plan" to address the threat of climate change to the local community. Over the past 3 years, this original plan has been revised to incorporate new climate mitigation (2008) and adaptation (2011) measures to strengthen the City's climate action efforts and to facilitate the numerous community co-benefits such as utility savings, better air quality, reduced traffic congestion, local economic development, and improved quality of life. Based on available funding, staff has been implementing the 18 climate-related actions and their 57 associated components. To date, most of the components have been successfully completed, are being implemented on an ongoing basis, or are being actively pursued. Only five components remain on-hold due to funding shortages

BACKGROUND
Since the early 1990s, Chula Vista has been engaged in multiple climate change forums including the United Nations Framework Convention on Climate Change, the ICLEI Cities for Climate Protection campaign, the California Climate Action Registry, and the U.S. Conference of Mayor's Climate Protection Agreement and has committed to reduce its greenhouse gas (GHG) emissions 20% below 1990 levels. To accomplish this GHG reduction or climate "mitigation" goal, the City adopted a Carbon Dioxide (CO2) Reduction Plan in 2000, which outlined steps for Chula Vista to reduce energy and fuel use at municipal facilities and throughout the community. In 2008, seven new climate mitigation measures were adopted by City Council to augment past efforts by improving energy and water efficiency, expanding renewable energy systems, converting to more fuel efficient and alternative fuel vehicles, and designing transit-friendly, walkable communities.

To complement these climate mitigation actions, City Council adopted eleven strategies in May 2011 to reduce Chula Vista's vulnerability to expected local climate change impacts (known as climate "adaptation"). These strategies addressed expected impacts such as hotter and drier weather, diminished imported water supplies, more poor air quality/heat wave days, more frequent wildfires, shifts in habitat and species distribution, and increased rates of sea level rise. By minimizing the risks associated with climate impacts now, future costs and public health concerns can be avoided and/or minimized. As a result of the City's climate action efforts, Chula Vista has been recognized for its sustainability accomplishments by multiple external organizations such as the US Environmental Protection Agency, ICLEI-Local Governments for Sustainability, Institute for Local Government, California Sustainability Alliance, California Center for Sustainable Energy, San Diego Gas & Electric, Sierra Club, and EarthWorks San Diego.

IMPLEMENTATION PROGRESS

The following report outlines the implementation progress for the 7 climate mitigation measures and the 11 climate adaptation strategies. In contrast to past progress reports, staff has worked to succinctly summarize each action's background information, implementation status, and next steps in one page. For each action and its associated components, staff has also outlined whether the implementation is:

Completed – All required implementation steps have been completed

Ongoing – All required initial steps have been completed, but component is still actively being implemented

In Progress – Implementation steps are still being developed and pursued based on the original implementation plan

On-Hold **–** Implementation has not proceeded due to a programmatic barrier (such as funding)

As directed by City Council, staff has been implementing the 18 climate-related actions and their 57 associated implementation components based on available funding. Since the last progress report in October 2011, staff continues to make significant progress in implementing most actions. Out of the 27 mitigation-related implementation components, 75% have been successfully completed and/or are being implemented on an ongoing basis, while another 14% are still being actively pursued. Of the 30 more recent adaptation-related implementation components, 30% have been completed, while another 63% are still being actively pursued. There are only five components that remain on-hold due to funding shortages – clean vehicle conversion of the City-contracted street sweepers (Mitigation Measure #2), the H Street Corridor Study (Mitigation Measure #6), community turf conversions (Mitigation Measure #7), and two components dealing with biological monitoring (Adaptation Strategies #8 & #9).

Staff continues to proactively seek new funding resources to support full implementation. In regards to grant funding, Chula Vista will be submitting an approximately $2.5 million proposal to the California Public Utilities Commission to continue and expand its Local Government Partnership with San Diego Gas & Electric (SDG&E). The Local Government Partnership funds multiple climate change actions related to energy use. The City will also be notified in the near future of two potential grant awards for climate adaptation efforts – a "cool paving" demonstration site at Greg Rogers Park and climate-resilient trail design plan for Otay Valley Regional Park.

In regards to other external funding sources and partnerships, the City, in coordination with the California Statewide Communities Development Authority, anticipates launching a Property-Assessed Clean Energy (PACE) program to help finance commercial energy retrofits in summer 2012. Also, staff will be presenting a new phase of municipal energy retrofit projects, which include additional solar photovoltaic arrays and LED streetlight conversions, to City Council for final consideration over the next few months. Finally, the City of Chula Vista, in partnership with the City of San Diego, County of San Diego, Port of San Diego, San Diego Foundation, and San Diego Gas & Electric, has created the "San Diego Regional Climate Collaborative." One of the Collaborative's goals is to highlight the partners' joint and individual accomplishments to the general public and potential funders through a unique branding and website platform.

CLIMATE MITIGATION MEASURES

The following (7) measures are designed to reduce greenhouse gas or "carbon" emissions from municipal operations and the broader Chula Vista community. The measures complement one another as well as state and federal climate mitigation initiatives.

MITIGATION MEASURE #1
CLEAN VEHICLE REPLACEMENT POLICY FOR CITY FLEET

Overview

Measure #1 directs the City to require that 100% of the replacement vehicles purchased for the municipal fleet be high efficiency (hybrid) or alternative fuel vehicles (AFVs). However, factors such as the appropriateness for the vehicle task, fueling infrastructure, petroleum displacement, and the overall cost and environmental benefit must be considered prior to purchasing each replacement vehicle.

	#	COMPONENTS	STATUS	PROGRESS
CLIMATE MITIGATION MEASURE #1: 100% City-Fleet Replacement with AFVs	1	Design and construction of a 12,000-gallon biodiesel tank at PWC	Completed	City's 128 diesel-fueled vehicles (or 23% of the total fleet) has been converted to biodiesel.
	2	Replace City's-fleet with AFVs or hybrids	Ongoing	With the arrival of (2) new hybrid wastewater trucks, 29% of City's total fleet will be converted to AFVs.

Next Steps

City vehicles will be replaced with hybrids or AFVs on an ongoing basis, as appropriate funding becomes available. For the current Fiscal Year, two hybrid wastewater vehicles have been ordered and are expected to arrive in May. For Fiscal Year 2013, two additional wastewater vehicles will be replaced with either hybrid or alternative fuel technologies.

MITIGATION MEASURE #2
CLEAN VEHICLE REPLACEMENT FOR CITY-CONTRACTED FLEETS

Overview

Measure #2 directs staff to work with fleets under City authority to influence their expanded use of alternative fuels and high efficiency/alternative fuel vehicles (AFV) including electric, biodiesel, ethanol, hybrid, hydrogen, and compressed natural gas (CNG) based on appropriateness for vehicle task, fueling infrastructure, petroleum displacement, overall cost, and environmental benefit.

CLIMATE MITIGATION MEASURE #2: 100% City-Contracted Clean Fleets	#	COMPONENTS	STATUS	PROGRESS
	1	Convert Chula Vista Transit to alternative fuels and/or high efficiency vehicles	Completed	100% of Chula Vista Transit fleet have been converted to AFV.
	2	Convert Solid Waste Hauler to alternative fuels and/or high efficiency vehicles	Completed	100% of Allied Waste fleet have been converted to AFV.
	3	Convert Street Sweeper to alternative fuels and/or high efficiency vehicles	On-Hold	Due to budget constraints, the current Street Sweeping contract was not able to include AFV, but the contract will be amended if more funding is identified.
	4	Convert City-contracted Tow Trucks to alternative fuels and/or high efficiency vehicles	In Progress	A new RFP for Tow Truck service, which includes hybrid/AFV requirements, has been finalized and is scheduled to be released in June 2012.
	5	Open publicly-available CNG dispenser at PWC	Completed	The new public CNG fuel station has dispensed almost 15,000 gallons (equivalent) since October 2011.

Next Steps

The City continues to work with contractors and community partners to promote local alternative fuel use and infrastructure. The City will complete the selection process for Tow Truck contracted service in late summer and expects the winning bid to integrate alternative fuel technologies. City staff is also actively participating on the San Diego Association of Governments' (SANDAG) Regional Electric Vehicle Infrastructure Working Group, to support expanding EV infrastructure. Across Chula Vista, there are currently ten public alternative fuel facilities – (5) electric, (2) CNG, (1) propane, (1) biodiesel, and (1) ethanol.

MITIGATION MEASURE #3
BUSINESS ENERGY EVALUATIONS

Overview

The measure, as revised by City Council, states that businesses with storefronts or offices need to participate in a no-cost energy and water evaluation of their premises when a new business license is issued or once every 3-5 years for a renewed business license. The measure helps businesses identify efficiency opportunities at their facilities, access rebates and financing for efficiency improvements, and lower their monthly utility costs. Businesses are not required to implement any of the identified energy or water efficiency opportunities and are not required to complete evaluations for facility areas beyond their operational control (ex. whole-building systems operated and maintained by a Property Manager/Landlord).

CLIMATE MITIGATION MEASURE #3: Business Energy Evaluations	#	COMPONENTS	STATUS	PROGRESS
	1	Develop ordinance integrating energy & water evaluations into business licensing process	Completed	CVMC Chapter 20 was revised to include the evaluations, known as the "Free Resource & Energy Business Evaluations" (FREBE) program.
	2	Complete onsite energy & water evaluations for businsesses annually	Ongoing	In 2012, 588 evaluations have been completed to date, while 276 have been scheduled during the next 5 months.
	3	Link businesses, who are interested in pursuing efficiency improvements, to available rebates, incentives, & financing	Ongoing	Through the FREBE program, over 300 businesses (or 53% of 'completed' evaluations) received free water-saving aerators, smart power strips, HVAC maintenance, CFLs, or other efficiency upgrades in 2012.
	4	Report to City Council on collected fines from non-compliant businesses	Ongoing	In 2011, only 4 businesses (out of 1,535) were non-compliant and were charged a $15 fine on their license renewal.

Next Steps

City staff is developing a new program plan for Calendar Years 2013-2014 for its Local Government Partnership in coordination with San Diego Gas & Electric and regional partners. The LGP will continue to provide critical funding and resources to assist local businesses in reducing their energy use and costs. Since the program's inception, over 94% of businesses (based on participant surveys) stated that they would refer the FREBE program to another business.

MITIGATION MEASURE #4
GREEN BUILDING STANDARD

Overview

Measure #4 directed staff to adopt regulations mandating new and renovated residential and non-residential projects to incorporate early the requirements of the Housing and Community Development's California Green Building Standards Code (CalGreen) and to be more energy efficient than the 2008 Building Energy Efficiency Standards (Title 24) by a specific percentage. In addition, the measure directed staff to implement a green building awareness program and update/establish design and regulatory provisions that incorporate sustainable practices at a community-scale.

CLIMATE MITIGATION MEASURE #4: Green Building Standard	#	COMPONENTS	STATUS	PROGRESS
	1	Adopt a citywide Green Building Standard	Completed	In fall 2009, the City adopted the 2010 CA Green Building Standards Code early with local amendments. In fall 2011, a voluntary Green Building Plus program offering expedited permitting was launched.
	2	Adopt a citywide Enhanced Energy Efficiency Standard	Completed	In fall 2009, the City adopted an Enhanced Energy Efficiency Code. To date, 674 new residential and 13 new commercial units have complied with the new code.
	3	Launch a Green Building Awareness program for builders, permit applicants, & the general public	Ongoing	Through the City's Sustainability Desk at the permit counter, contractors are able to obtain info and assistance about sustainable building options.
	4	Develop design guidelines for sustainable development	Completed	In 2011, the City incorporated sustainability criteria into its updated Air Quality Improvement Plan Guidelines and Design Manual for large and small-scale development, respectively.

Next Steps

The City will continue to implement its green building and related standards to emphasize energy and water efficiency, renewable energy, improved indoor air quality, and transit-friendly development. City staff will be revising its Enhanced Energy Efficiency standard in 2014, as needed, when the new statewide Title-24 code is revised.

MITIGATION MEASURE #5
SOLAR & ENERGY EFFICIENCY CONVERSION PROGRAM

Overview

The "Solar & Energy Efficiency Conversion" program was recommended to help facilitate energy efficiency and renewable energy retrofits in the community and at municipal facilities. The community component, called the *Home Upgrade, Carbon Downgrade* program, is intended to help the average resident and small business overcome common institutional barriers, upfront capital costs, complicated application processes, and time constraints. The program also strives to promote local job creation and economic development by linking community participants with local contractors and vendors. Finally, Measure #5 included the implementation of a pre-wiring and pre-plumbing requirement for solar photovoltaic (pv) and solar hot water systems, respectively, in all new residential units.

CLIMATE MITIGATION MEASURE #5: Solar & Energy Efficiency Conversions	#	COMPONENTS	STATUS	PROGRESS
	1	Implement a Solar & Energy Efficiency Conversion program for the community	Ongoing	With federal stimulus funds, the City's *Home Upgrade, Carbon Downgrade* program has provided approximately $300,000 in energy upgrade incentives to residents and completed a Sustainable Energy Showcase Home.
	2	Upgrade municipal facilities with energy efficiency & solar energy technologies	Ongoing	The City has completed installation of new solar arrays at 11 facilities and conversion of over 4,300 streetlights to more efficient technolgies.
	3	Link conversion program to local economic development	Ongoing	Through the *Home Upgrade, Carbon Downgrade* program, over $3.9 million in sales have been generated at local appliance stores benefitting the Chula Vista economy.
	4	Adopt pre-wiring and pre-plumbing standards for solar pv & solar hot water, respectively	Completed	In 2009, the City adopted the "solar ready" ordinances. To date, 1,044 new residential units have complied with the new code.

Next Steps

The City will be including additional funding for its *Home Upgrade, Carbon Downgrade* program in its 2013-2014 SDG&E Local Government Partnership proposal. Potential program components include streamlined permitting, workforce training, and home energy ratings in order to further facilitate energy efficiency and solar retrofits in the community. City staff has also begun to pursue a local Property Assessed Clean Energy (PACE) program to help finance community retrofits.

MITIGATION MEASURE #6
SMART GROWTH AROUND TROLLEY STATIONS

Overview

Measure #6 is intended to accomplish the remaining planning groundwork necessary to support realization of the "Smart Growth" development densities and intensities envisioned in both the General Plan and the Urban Core Specific Plan (UCSP). Specifically, the measure's four components are focused on the areas surrounding the E Street, H Street, and Palomar Street trolley stations.

CLIMATE MITIGATION MEASURE #6: Smart Growth Around Trolley Stations	#	COMPONENTS	STATUS	PROGRESS
	1	Implementation of UCSP around E Street Trolley Station	In Progress	Staff is continuing to work with property owners and other interested parties towards project options for E Street parcels, and will apprise the City Council when viable prospects are identified.
	2	Initiate a H Street Corridor Study to better define redevelopment opportunities around the Trolley Station	On-Hold	Due to the dissolution of redevelopment agencies statewide, the H Street Corridor Study is on-hold indefinitely until alternative funding sources are identified.
	3	Develop a specific plan for the Palomar Gateway area, including the Palomar Trolley Station	In Progress	City is currently working to complete the specific plan and its related environmental documents for City Council consideration in July 2012.
	4	Pursue trolley grade separation along the I-5 corridor	In Progress	In coordination with SANDAG and CalTrans, a consultant has been engaged to conduct a grade separation design study to be completed in December 2012.

Next Steps

The City will continue to pursue "Smart Growth" development surrounding Chula Vista's three trolley stations. Specifically, staff will work with CalTrans and SANDAG to complete project design and to secure funding for trolley grade separation. In addition, the City will continue to pursue project options for the E St. Station area properties and to identify alternative funding opportunities for the H Street Corridor Study.

MITIGATION MEASURE #7
TURF LAWN CONVERSION PROGRAM

Overview

Because water movement and treatment requires a large amount of energy (leading to GHG emissions), Measure #7 helps residents and businesses replace turf lawn areas with "WaterSmart" landscaping. Specifically, the program's components include (1) continuation and expansion of the NatureScape program to promote water conserving and nature-friendly landscaping, (2) coupling of residential and business turf lawn replacement with the solar and energy efficiency conversion program (Measure #5), (3) converting select municipal facilities to low water use plantings and irrigation, and (4) updating various municipal landscape regulations and guidelines to comply with new state requirements and further promote outdoor water use efficiency.

CLIMATE MITIGATION MEASURE #7: Turf Lawn Conversion	#	COMPONENTS	STATUS	PROGRESS
	1	Expand the NatureScape outreach program	Ongoing	Through the program, the community now has over 395 certified "Backyard Wildlife Habitats." The City also launched its "NatureScape-In-A-Box" kits and workshop series in January 2012.
	2	Include turf lawn replacement in *Home Upgrade, Carbon Downgrade* program (Measure #5)	On-Hold	Current federal funding, which supports the *Home Upgrade, Carbon Downgrade* program, can not be used for turf conversions. Staff continues to explore other funding sources.
	3	Convert municipal facilities to low water use plantings & irrigation	Ongoing	The City has initiated turf replacement projects along Orange Avenue (medians between Connely Ave & Hilltop Drive) and at the Animal Shelter.
	4	Update landscaping ordinances to emphasize water use efficiency	Completed	In 2010, a revised Landscape Water Conservation Ordinance was approved by City Council that creates a water budget for new or renovated landscapes and promotes water-efficient design.

Next Steps

City staff continues to pursue grants, incentives, and other funding sources to support the conversion of municipal, residential, and commercial landscapes to more water efficient versions. For municipal facilities, staff is working to develop a resource reinvestment fund, in which a portion of utility savings from energy and water retrofit projects can be reinvested in similar projects.

CLIMATE ADAPTATION STRATEGIES

The following (11) strategies are designed to reduce Chula Vista's future risks and costs from expected climate change impacts such as sea level rise, more frequent wildfires and extreme heat days, and increased stress on energy and water supplies. The measures complement one another as well as state and federal climate adaptation initiatives.

ADAPTATION STRATEGY #1
COOL PAVING

Overview

To address climate change impacts related to the urban heat island effect (hotter ambient air temperatures), Strategy #1 is intended to incorporate reflective (or "cool paving") into all municipal projects (parking lots and streets) and new private parking lot projects over a specific size. Cool pavements refer to a range of established and emerging paving materials, which store less heat and have lower surface temperatures compared with conventional products. Specifically, the strategy's components include performing a comprehensive study to evaluate and test multiple reflective pavement technologies and developing options (based on the study's results) for incorporating cool pavement technologies into municipal standards.

	#	COMPONENTS	STATUS	PROGRESS
CLIMATE ADAPTATION Strategy #1: Cool Paving	1	Conduct a "cool paving" study to evaluate options	In Progress	A final consultant report evaluating cool pavement options is expected in fall 2012. The City will also be notified in May if it has received a potential grant for a Greg Rogers Park demonstration project.
	2	Develop standards for incorporating "cool paving" into municipal and development projects	In Progress	Dependent on the outcome of component #1, staff will present recommendations to City Council for consideration.

Next Steps

With the results of the desktop evaluation of cool pavement technologies, staff expects to develop a work plan to begin to test and further integrate feasible technologies into the Capital Improvement Program. If Chula Vista is successful in securing grant funding for a demonstration site, the project would be initiated by the end of 2012 and be monitored for 12-24 months to assess pavement performance. In addition, as City staff further develops a new shade tree policy (Strategy #2) in collaboration with community stakeholders, there will be some inclusion of cool paving as an alternative approach to meeting the policy's intent.

ADAPTATION STRATEGY #2
SHADE TREES

Overview

To address climate change impacts related to the urban heat island effect and energy demand, Strategy #2 is intended to incorporate shade trees into all municipal improvement projects and all private development parking lot projects. Shade trees contributing to a robust urban forest act as a natural cooling mechanism for urban areas. In addition, canopy-forming trees help reduce storm water runoff, provide habitat for wildlife, and increase property values. Specifically, the strategy's components include (1) developing a shade tree policy for future City Council consideration, (2) amending the Municipal Landscape Manual to be consistent with the new policy, and (3) ensuring that the recently-updated Design Manual is consistent with the new policy.

	#	COMPONENTS	STATUS	PROGRESS
CLIMATE ADAPTATION Strategy #2: Shade Trees	1	Develop a formal shade tree policy	In Progress	Staff presented the draft policy to the Resource Conservation Commission in February and is scheduled to present to the Development Services Oversight Committee in May 2012.
	2	Amend the Municipal Landscape Manual to be consistent with the new shade tree policy	In Progress	Based on the outcome of component #1, the Municipal Landscape Manual will be revised, as appropriate.
	3	Ensure that the Design Manual is consistent with the new shade tree policy	Completed	As part of the new Council-approved Design Manual, new development projects must incorporate shade trees and provide at least 50% shade coverage for paved areas.

Next Steps

City staff will continue to work with landscape architects, developers, and other community representatives to refine the draft shade tree policy, which will be presented to City Council in May 2012 for final review and consideration. Following a City Council decision, staff will revise the Municipal Landscape Manual to be consistent.

ADAPTATION STRATEGY #3
COOL ROOFS

Overview

Strategy #3 is intended to address climate change impacts related to the urban heat island effect and energy demand by promoting "cool roofs." Cool roofs, which are made of highly reflective and emissive material, can remain approximately 50 to 60°F cooler compared to traditional materials, thus helping to lower ambient temperatures inside and outside of buildings. This creates a more comfortable and healthy environment for building occupants and reduces energy use for air-conditioning. To accomplish Strategy #3, City staff will further evaluate cool roofing options and propose amendments to the municipal building codes for City Council consideration.

	#	COMPONENTS	STATUS	PROGRESS
CLIMATE ADAPTATION Strategy #3: Cool Roofs	1	Conduct a "cool roof" study to evaluate options	Completed	With the assistance of SDG&E, staff has completed a cost-benefit analysis of cool roof options, which was used to inform proposed building code revisions (component #2).
	2	Develop standards for incorporating "cool roofs" into building codes	Completed	The City obtained California Energy Commission approval and City Council adopted the Ordinance in March 2012.

Next Steps

The Cool Roof Ordinance, which requires new low-rise residential developments in Climate Zone 10 (eastern Chula Vista) to comply with Tier 2 reflective roof specifications found in the California Green Building Standards Code, will become effective on April 26, 2012.

ADAPTATION STRATEGY #4
LOCAL WATER SUPPLY & REUSE

Overview

Expected climate change impacts could limit imported water availability, increase utility costs for residents and businesses, and lead to higher demand for local water sources. As such, Strategy #4 is intended to educate the community about the benefits and appropriate uses of local water supplies and further integrate recycled water/onsite water reuse systems into new development. Specifically, components include (1) evaluating municipal building code options to incorporate single-source gray water "stub-outs" in new residential buildings and indoor recycled water in new commercial buildings, (2) developing an educational guide about proper gray water use, (3) creating an incentive (using external funding sources) to promote onsite water reuse, and (4) updating the City's water-related plans to reference and promote recycled water and onsite water reuse systems.

	#	COMPONENTS	STATUS	PROGRESS
CLIMATE ADAPTATION Strategy #4: Local Water Supply & Reuse	1	Develop standards for incorporating gray water stub-outs (residential) and indoor recycled water use (commercial)	In Progress	Staff has begun to meet with the water districts and other relevant public agencies to discuss potential standards language and parameters.
	2	Develop a gray water educational guide to help ensure proper use	In Progress	Based on the outcome of component #1, an educational guide will be created to promote the proper use of gray water and other onsite water reuse options (such as rain harvesting).
	3	Create an onsite water reuse incentive program	In Progress	With the water districts, staff has developed a draft framework for an onsite water reuse incentive program. Once finalized, it will be used to solicit external funding sources for support.
	4	Update water-related municipal guidelines & plans to promote gray water	In Progress	Based on the outcome of component #1, municipal guidelines will be updated to be consistent with new gray water and other water reuse policies.

Next Steps

City staff expects to present a gray water stub-out standard to City Council for consideration within the next 6 months. Because indoor use of recycled water is a more complex issue, a draft standard for commercial buildings, as well as the other components, will be pursued after a stub-out standard is finalized.

ADAPTATION STRATEGY #5
STORM WATER POLLUTION PREVENTION & REUSE

Overview

Climate change will likely alter regional precipitation patterns, thus altering water runoff and sediment movement flows through local watersheds. Because of urbanization and its associated activities, pollutants are discharged with these flows into the City's storm drainage systems, creeks, rivers, San Diego Bay, and the ocean and reduce the beneficial uses of these water bodies for the Chula Vista community. Strategy #5 is intended to revise the City's storm water regulations and applicable municipal codes to efficiently manage higher concentrations of pollutants in urban runoff by minimizing water waste, using natural landscapes to help drain or reuse runoff, and by ensuring that irrigations systems are properly installed and maintained.

CLIMATE ADAPTATION Strategy #5: Storm Water Pollution Prevention & Reuse	#	COMPONENTS	STATUS	PROGRESS
	1	Develop revisions to the municipal code to prohibit excessive landscape over-irrigation resulting in urban runoff	In Progress	Staff has identified the required code revisions needed to address landscape water runoff and has begun to draft an ordinance for future consideration.
	2	Encourage the beneficial reuse of pipe flushing water at construction sites	In Progress	A preliminary search to identify other agencies or companies, who reuse pipe flushing water on construction sites, was completed to inform development of a guidance brochure.
	3	Develop incentives promoting Low Impact Development (LID) design concepts	In Progress	Various non-monetary incentives are being explored by staff for developers to incorporate LID features in their project designs.
	4	Conduct a feasibility study for the beneficial reuse of dry weather flow sources	In Progress	A concept plan for re-using dry weather flows in Hilltop Park for park landscape irrigation was created and will be used to help target potential grant funding.

Next Steps

City staff expects that the landscape water runoff code revisions will be presented to City Council for review and consideration within the next 3-4 months. Likewise, components #2 and #3 dealing with developer guidance brochures and incentives will be completed within 6 months. For component #4, City staff will further develop the Hilltop Park Storm Water Reuse Project and seek funding support, as appropriate.

ADAPTATION STRATEGIES #6 & #7
EDUCATION & WILDFIRES
EXTREME HEAT PLANS

Overview

The frequency and intensity of wildfires and extreme heat events is expected to increase due to local climate change impacts. These events could lead to greater public safety (loss of life and property) and health concerns (poor air quality and infectious disease transmittal). The strategies are designed to educate the general public and the business community about the impacts of climate change using existing City and community partner outreach mechanisms with a special emphasis on making homes more resilient to wildfires, incorporating poor air quality day notifications, and educating businesses about employee heat illness risks. In addition, extreme heat events will be added as a significant emergency to the City's public safety plans with a special emphasis on serving vulnerable populations and supporting a robust network of energy-secured "Cooling Centers."

CLIMATE ADAPTATION Strategy #6: Education & Wildfires Strategy #7: Extreme Heat Plans	#	COMPONENTS	STATUS	PROGRESS
	1	Expand community wildfire education	Ongoing	The City launched its new "Ready, Set, GO!" campaign, which is a comprehensive outreach program designed to promote wildifre prevention & preparedness.
	2	Revise emergency plans to include extreme heat events	In Progress	The City will be revising its Emergyency Response Plan in 2012 and its section of the Multi-Jurisdictional Hazard Mitigation Plan in 2015, as appropriate.
	3	Establish a procedure for notifying the community about poor air quality & extreme heat days	Completed	City staff now receives and forwards air quality notifications from the San Diego County Air Pollution Control District through the City's Nixle community messaging system.

Next Steps

City staff will continue to implement its community education and notification programs related to wildfires and extreme heat days. Staff has begun the revision process for the Emergency Response Plan and expects to finalize the plan in September 2012. The Multi-Jurisdictional Hazard Mitigation Plan will be revised to include extreme heat events, as part of its regularly-scheduled update in 2 years.

ADAPTATION STRATEGY #8
OPEN SPACE MANAGEMENT

Overview

Chula Vista's open space areas include landscaped areas within developments, parks and recreation areas, and open space that has been set aside as a preserve for sensitive biological resources. In order to assess and reduce impacts associated with climate change on parks and open space and their associated ecosystems, Strategy #8 is intended to seek opportunities for the City to partner with the Resource Agencies, non-profit organizations, and/or adjacent public land managers to monitor and manage/restore ecosystems to ensure long-term habitat connectivity, species resilience, and community recreational opportunities.

	#	COMPONENTS	STATUS	PROGRESS
CLIMATE ADAPTATION Strategy #8: Open Space Management	1	Integrate climate change-related biological monitoring into Otay Ranch Preserve's Management Plan & Annual Work Plans	On-Hold	Staff will include climate change-related monitoring into the FY2013 Work Plan, but funding for Management Plan amendments & implementation is still being pursued.
	2	Update the Otay Valley Regional Park (OVRP) Concept Plan to incorporate climate-resilient design & educational guidelines	In Progress	The City applied for a state grant to further design and develop park trails (east of 805), which will integrate climate-resilient design and educational concepts.
	3	Convert landscaped areas in open space districts to water-saving plants, mulch, & irrigation sytems	Ongoing	Installed 4 new master valves in the open space districts to prevent accidental water discharge from breaks or accidents.

Next Steps

If the OVRP is awarded the park trails grant, the City and its partners will implement the project's design and environmental review work over the next 12 months. Staff will also continue coordinating with its regional partners to finalize the proposed Concept Plan amendments, which integrate climate change impacts and vulnerabilities, by spring 2013.

ADAPTATION STRATEGY #9
WETLANDS PRESERVATION

Overview

Expected local climate change impacts include precipitation variability and sea level rise that will stress riparian wetlands and estuarine wetlands, respectively. As a result, the locations where the temperature, moisture, and other environmental conditions are suitable for wetlands and their associated species will shift. In order to reduce these impacts, Strategy #9 is intended to ensure that, when preserving or restoring coastal and riparian wetland, the City take steps to incorporate adequate upland or transition habitats to accommodate shifts in wetlands coverage and help ensure public access due to sea level rise and other climate change impacts. Specifically, components include (1) evaluating the feasibility of monitoring local wetlands species ranges and abundances in response to climate change impacts, (2) incorporate wetlands "migration" in habitat management and restoration design criteria in the future Bayfront Natural Resources Management Plan (NRMP), and (3) revise the OVRP Habitat Restoration Plan and Non-native Plant Removal Guidelines to include strategies for climate change adaptation issues.

CLIMATE ADAPTATION Strategy #9: Wetlands Preservation	#	COMPONENTS	STATUS	PROGRESS
	1	Evaluate potential to monitor local wetlands' biological health to assess climate change impacts	On-Hold	Staff, in coordination with its partners, is seeking funding to support biological wetlands monitoring.
	2	Incorporate climate change & sea level rise concepts in Bayfront NRMP	In Progress	City, along with the Port & Bayfront Wildife Advisory Group, has reviewed potential biological consultants to help lead the NRMP efforts.
	3	Amend OVRP Habitat Restoration & Non-Native Plant Removal Plans to promote climate resiliency	In Progress	City has begun discussions with partners on proposed OVRP plans' amendments.

Next Steps

City staff expects that a NRMP biological consultant will be secured in April and will begin to assist in developing appropriate climate change and sea level rise concepts in May 2012. The City will also continue working with its OVRP partners in order to finalize the proposed climate change-related amendments to the Habitat Restoration Plan and Non-Native Plant Removal Plan by spring 2013.

ADAPTATION STRATEGY #10
SEA LEVEL RISE & LAND DEVELOPMENT CODES

Overview

Over the next 40 years, sea level rise rates are expected to increase with local sea levels 12 to 18 inches higher than their current levels. Higher sea levels can result in increased erosion, more frequent flooding and property damage, loss of wetland habitats, and fewer waterfront public access options. As such, Strategy #10 directs the City to amend its land development codes and CEQA guidelines to incorporate climate change-related sea level rise into future development and municipal infrastructure projects' design and review. Specifically, the components include (1) revising the grading ordinance to consider a project's vulnerability to future sea level rise and flooding events, (2) modifying the Subdivision Manual to ensure that storm water/drainage infrastructure can address future sea level rise and flooding impacts, and (3) ensuring that environmental review and CEQA procedures are consistent with these changes.

CLIMATE ADAPTATION Strategy #10: Sea Level Rise & Land Development Codes	#	COMPONENTS	STATUS	PROGRESS
	1	Revise the grading ordinance to address increased rates of sea level rise	Completed	An ordinance revising Municipal Code 15.04 was adopted by City Council to address coastal development and sea level rise concerns.
	2	Modify Subdivision Manual to ensure proper drainage with higher sea levels	Completed	In March 2012, City Council approved revisions to the Subdivision Manual, which require 16" of sea level rise to be used for evaluating projects within tidally influenced areas.
	3	Ensure CEQA review procedures are consistent with new sea level-related land development guidelines	In Progress	Staff has been collaborating with the Office of Planning & Research to further define appropriate sea level rise environmental review processes.

Next Steps

Over the next 6 months, staff will finalize the CEQA review procedures for sea level rise impacts to ensure that they are consistent with new municipal policies and statewide guidelines.

ADAPTATION STRATEGY #11
GREEN ECONOMY

Overview

Climate change impacts create new issues that local communities and, in particular, businesses need to address and prepare for in order to reduce future risks and costs. These issues can include higher insurance premiums due to greater flooding or wildfire risks, more expensive utility costs due to higher energy and water demand, and lower productivity due to more employee sick days from frequent extreme heat and poor air quality days. As such, Strategy #11 is designed to provide assistance and non-monetary incentives to help businesses manage climate change risks and to attract businesses that provide "green" products or services into Chula Vista. Specifically, the components include (1) revising the municipal purchasing policy to more robustly promote the procurement of "green" products and services, especially from local Chula Vista businesses, (2) revising existing business outreach programs to include recommendations on how they can reduce future climate change risks, and (3) continuing the recruitment and retention of "green" businesses and manufacturers in Chula Vista.

	#	COMPONENTS	STATUS	PROGRESS
CLIMATE ADAPTATION Strategy #11: Green Economy	1	Revise "green" procurement policy & process	In Progress	The first component - a "Virtual Warehouse" to facilitate the reuse of municipal supplies - has been developed and will be launched in May 2012.
	2	Modify business outreach programs to include information on reducing climate change risks	Completed	Both the CLEAN Business and FREBE checklists have been updated to include info on business-related climate adaptation strategies.
	3	Continue recruiting & retaining "green" businesses	In Progress	A searchable, online database of Chula Vista CLEAN Businesses and a yearlong "Green Business Challenge" were implemented to help Chula Vista CLEAN Businesses.

Next Steps

After the launch of the "Virtual Warehouse," new internal procedures for implementing and tracking the City's "green" procurement policy will be finalized over the next 6 months. In addition, staff continues to develop an overall "local preference" procurement policy, which will include an emphasis on supporting participants in the Chula Vista CLEAN Business program